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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,331

12/04/2003

Theodore E. Anvick

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7590

07/30/2008

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EXAMINER

CAJILIG, CHRISTINE T

ART UNIT

PAPER NUMBER

3633

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/728,331	Applicant(s) ANVICK ET AL.	
	Examiner CHRISTINE T. CAJILIG	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008 and 06 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,8,12,20-23 and 36-48 is/are pending in the application.
- 4a) Of the above claim(s) 20-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6,8,12 and 36-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/06/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Species 4 in the reply filed on 08/06/07 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election **without** traverse (MPEP § 818.03(a)).

Claims 20-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species 1-3 and 5-20, there being no allowable generic or linking claim.

Claim Objections

Claims 44 objected to because of the following informalities: Line 2 of claim 44 contains a typographical error "an web." Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. Patent No. 6,006,483).

Regarding claim 12, Lee in Figure 5 discloses a truss device comprising at least one cord (14) and at least one web (15), wherein the web comprises a central portion (321) defining and lying within a web plane, and the web further comprises a series of web vertices (34, 34'), and wherein at least one of the web vertices is formed or bent out of the web plane, and wherein the at least one cord is positioned adjacent the web at the web vertex that is formed or bent out of the web plane.

Regarding claim 6, Lee further discloses that the truss device is fabricated with a multiplicity of apertures along the horizontal length.

Regarding claim 8, Lee further discloses that apertures are disposed in a plurality along transverse faces of the truss.

Claims 36-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Sonneville (U.S. Patent No. 4,085,556).

Regarding claim 36, Sonneville in Figure 3 discloses a truss comprising a web (20a), wherein the web comprises a generally curvilinear waveform defining and generally lying within a web plane, the generally curvilinear waveform also defining a generally longitudinal axis of the web, the curvilinear waveform comprising a first series of web vertices (20) adjacent a first edge of the web, and wherein one or more of the web vertices of the first series of web vertices is formed or bent out of the web plane so as to form one or more first non-planar web vertices; and a first cord (18) positioned adjacent the web at or adjacent the one or more first non-planar web vertices.

Regarding claim 37, Sonnevile further discloses a second series of web vertices (20), wherein the second series of web vertices are positioned at a second edge of the web.

Regarding claim 38, Sonnevile further discloses a second cord (17) that is positioned adjacent the web adjacent the second series of web vertices.

Regarding claim 39, Sonnevile further discloses that one or more of the second series of web vertices (20) is bent or formed out of the web plane so as to form one or more second non-planar web vertices, and wherein a second cord (17) is positioned adjacent the web at or adjacent the one or more first non-planar web vertices.

Regarding claim 40, Sonnevile further discloses that wherein the one or more first non-planar web vertices and the one or more second non-planar web vertices are bent or formed out of the web plane at an angle less than 90 degrees.

Regarding claim 41, Sonnevile further discloses that the one or more first non-planar web vertices and the one or more second non-planar web vertices are bent or formed out of the web plane at an angle of about 45 degrees.

Regarding claim 42, Sonnevile further discloses that the one or more first non-planar web vertices are bent or formed out of the web plane at an angle less than 90 degrees.

Regarding claim 43, Sonnevile further discloses that the one or more first non-planar web vertices are bent or formed out of the web plane at an angle of about 45 degrees.

Claims 44, 46, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheahan (U.S. Patent No. 4,386,489).

Regarding claim 44, Sheahan discloses a space frame comprising a plurality of trusses (10) each of the trusses comprising a web (16) and a cord (19), the web comprising a central portion defining a web longitudinal axis, the central portion defining and lying generally within a web plane (plane created by 16), the web further comprising a series of web vertices (17), wherein at least one of the web vertices is formed or bent out of the web plane, and wherein the cord (19) is positioned adjacent the web at the web vertice that is formed or bent out of the web plane, whereby an aperture (14) is formed within the area bounded by the web vertice and adjacent cord, wherein the plurality of trusses are positioned adjacent each other with at least one aperture of each truss aligned with at least one aperture of an adjacent truss to form a first set of aligned apertures; and at least one lateral reinforcement element (23), the at least one lateral reinforcement element passing through the first set of aligned apertures.

Regarding claim 46, Sheahan further discloses that the at least one of the web vertices is formed or bent out of the web plane at an angle less than 90 degrees (see Figure 2; angle between 16 and 17).

Regarding claim 48, Sheahan further discloses that the plurality of trusses are positioned adjacent each other with a plurality of apertures of each truss aligned with a plurality of apertures of an adjacent truss to form multiple sets of aligned apertures; and further comprising a plurality of lateral reinforcement elements (23), the plurality of

lateral reinforcement elements each passing through the one or more of the multiple sets of aligned apertures.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheahan '489.

Regarding claim 47, Sheahan does not disclose that the at least one of the web vertices is formed or bent out of the web plane at an angle of about 45 degrees. It would have been obvious to one having ordinary skill in the art at the time of invention to have the web vertices (17) angled at about 45 degrees from the web plane (defined by 16), since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. An angle of 45 degrees would spread 16 and 17 further apart thus providing a predictable result of increased stability when the truss is placed on a deck.

Claims 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baumann (U.S. Patent No. 3,407,560) in view of Dietner et al. (U.S. Patent No. 3,400,508).

Regarding claim 44, Baumann discloses a space frame comprising a plurality of trusses (10) each of the trusses comprising a web (11) and a cord (14), the web comprising a central portion defining a web longitudinal axis, the central portion defining and lying generally within a web plane, the web further comprising a series of web vertices (12), and wherein the cord (14) is positioned adjacent the web at the web vertice, whereby an aperture (15) is formed within the area bounded by the web vertice and adjacent cord, wherein the plurality of trusses are positioned adjacent each other with at least one aperture of each truss aligned with at least one aperture of an adjacent truss to form a first set of aligned apertures; and at least one lateral reinforcement element (19), the at least one lateral reinforcement element passing through the first set of aligned apertures.

Baumann does not disclose that web vertices is formed or bent out of the web plane.

Dietner discloses a truss wherein a web portion (R3) has a vertice (4) that is bent out of the web plane for forming a planar abutment surface against an adjacent structure.

It would have been obvious to a person having ordinary skill in the art at the time of the Applicant's invention to modify Baumann to have each web vertices formed or bent out of the web plane as taught by Dietner et al. to achieve the predictable result of

having a planer abutment surface gains adjacent truss webs thus forming a more stable and rigid structure.

Regarding claim 45, Baumann modified by Dietner et al. further discloses that the adjacent trusses are positioned so that the web longitudinal axes of adjacent trusses are generally parallel to each other, and the web planes of adjacent trusses are offset by about 90 degrees from each other.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Francom (US 7155872) web frame; Burger et al. (US 4660346) framing system; Barnes (US 868,065) reinforcement; Wegler (US 5802802) truss with bent web; Larsson (US 4236364) truss with bent web; Weston (US 1727147) truss with bent web; Southern (US 1554767) concrete reinforcement; Stanley et al. (US 2670819) truss structure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE T. CAJILIG whose telephone number is (571)272-8143. The examiner can normally be reached on Monday - Thursday from 8am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Canfield can be reached on (571) 272-6840. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/C. T. C./
Examiner, Art Unit 3633
7/18/08

/Robert J Canfield/
Supervisory Patent Examiner, Art Unit 3635